

### **REMARKS**

Reconsideration and allowance is requested in consideration of the following remarks. Claims 1-21 are currently pending in connection with the present application. Claims 1 and 11 are independent claims. No claims have been amended, added or cancelled by this amendment. There is no new matter. Applicant traverses the rejections set forth in the Office Action dated January 20, 2006.

### **PRIOR ART REJECTIONS**

Claims 1-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sewall et al. (U.S. Patent No. 6,708,146) in view of Huang et al. (U.S. Patent No. 6,018,706). Applicant respectfully traverses this rejection.

The Examiner admits that Sewall does not teach an autocorrelation calculation that represents a periodicity parameter in an autocorrelation function, and relies on Huang to make up for the deficiencies of Sewall.<sup>1</sup>

Huang is directed to a method of encoding an outgoing transmission into a highly compressed signal for a code book receiver. The method disclosed dividing audio input into voice and unvoiced portions, then extracting any unvoiced portions from the voice portions.<sup>2</sup> Huang employs a repetitive waveform of the voice data to separate the voice data from the unvoiced data. Huang further discloses using the divided voice and unvoiced data to encode an audio signal for an MBE synthesizer.<sup>3</sup>

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<sup>1</sup> Office Action dated January 20, 2006, page 3.

<sup>2</sup> Huang, Col. 6, lines 12-20.

<sup>3</sup> Id.

Applicant submits that neither Sewall nor Huang, either alone or in combination, teach “calculating a self-similarity ratio value, representing the periodicity characteristic ... for an input signal segment, wherein calculating the self-similarity ratio value includes calculation a plurality of different self-similarity ratio values in selecting the highest one, the plurality of the self-similarity ratio values as a calculated self-similarity ratio value” as recited in independent claim 1. On the contrary, Huang only discloses using the repetitive nature of the voice data **to separate** out the voice data from the unvoiced data and **does not make use of the repetitive information to calculate a plurality of associated values and thereafter select one to represent the data**. Contrary to the Examiner’s assertion, the pitch enhancer only finds the pitch of various localized regions of the voice data, but **does not select among a plurality of pitch values to select a representative or peak pitch value, for a plurality of calculated values**. The pitch enhancer only calculates the pitch for one region and uses that value without comparing it to a plurality of different calculated pitch values.<sup>4</sup>

Furthermore, with respect to Sewall, the Examiner admits that Sewall does not teach or suggest calculating a periodicity parameter.<sup>5</sup>

Accordingly, Applicant submits that neither Sewall nor Huang, either alone or in any proper combination, teach, suggest, or render obvious all of the features of independent claim 1, and claim 1 is therefore patentable. For somewhat similar reasons, independent claim 11 is also patentable (although claims 1 and 11 should be interpreted solely based upon the limitations set forth therein). Therefore, Applicant respectfully requests that the rejection of independent claims 1 and 11, and dependent claims 2-10 and 12-21 under 35 U.S.C. §103(a) be withdrawn.

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<sup>4</sup> Huang, Col. 17, lines 26-47 and Col. 17, line 57 to Col. 18, line 9.

<sup>5</sup> Office Action dated January 20, 2006, page 3.

**CONCLUSION**

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-21 in connection with the present application is earnestly solicited.

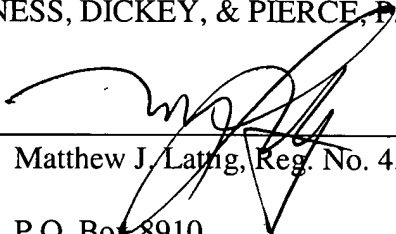
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

  
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